AMENDMENTS TO THE CLAIMS

Set forth below in ascending order, with status identifiers, is a complete listing of all claims currently under examination. Changes to any amended claims are indicated by strikethrough and underlining. This listing also reflects any cancellation and/or addition of claims.

Claim 1 (currently amended)

A method of making polymer-based pellets that have utility in extrusion and melt spun manufacturing processes~~, each pellet containing at least one phase change material~~, comprising ~~the steps of~~:

melting a dispersing polymer~~dispersing polymer~~ to form a melt;

adding a wet cake of a phase change material to said melt to form a dispersion~~having phase change material generally uniformly dispersed throughout said dispersion~~;

heating said dispersion to reduce a water content of said dispersion;

cooling said dispersion to form a solid; and

processing said solid to form polymer-based pellets~~, each pellet~~ containing said phase change material.

Claim 2 (currently amended)

The method of claim 1 wherein~~including said step of~~ processing said solid includes ~~the step of~~:

blending a thermoplastic polymer~~thermoplastic polymer~~ with said solid prior to forming said polymer-based pellets.

Claim 3 (original)

The method of claim 1 wherein said polymer-based pellets each contain from about 10 to about 30 weight percent of said phase change material.

Claim 4 (currently amended)

The method of claim 12 wherein said wet cake of said phase change includes~~polymer based pellets each contain~~ from about 6010 to about 7030 weight percent of said phase change material.

Claim 5 (currently amended)

The method of claim 1 wherein said dispersing polymer~~dispersing polymer~~ is a low molecular weight polymer.

Claim 6 (currently amended)

The method of claim 1 wherein said dispersing polymer~~dispersing polymer~~ is a polyethylene homopolymer.

Claim 7 (currently amended)

The method of claim 2 wherein said dispersing polymer~~dispersing polymer~~ is a low molecular weight polymer having an affinity for said phase change material, and wherein said thermoplastic polymer~~thermoplastic polymer~~ is a high molecular weight polymer having an affinity for said low molecular weight polymer.

Claim 8 (currently amended)

The method of claim 2 wherein said dispersing polymer~~dispersing polymer~~ is a low molecular weight polymer, and wherein said thermoplastic polymer~~thermoplastic polymer~~ is a high molecular weight polymer selected from the group consisting of polyamides, polyamines, polyimides, polyacrylics, polycarbonates, polydienes, polyepoxides, polyesters, polyethers, polyflourocarbons~~polyflouocarbons~~, formaldehyde polymers, natural polymers, polyolefins, polyphenylenes, silicon containing polymers, polyurethanes, polyvinyls, polyacetals, and polyarylates.

Claim 9 (currently amended)

The method of claim 1 wherein said phase change material is an encapsulated phase change material.

Claim 10 (currently amended)

The method of claim 1 wherein said phase change material is physically contained by ~~the addition of~~ a material selected from the group consisting of silica, fumed silica, and zeolite.

Claim 11 (currently amended)

The method of claim 1 wherein ~~said step of~~ processing said solid to form said polymer-based pellets includes an extrusion step.

Claim 12 (currently amended)

The method of claim 1 wherein ~~said step of adding phase change material to said melt includes adding a phase change material wet cake to said melt, and including the step of~~ heating said dispersion includes heating said dispersion~~melt~~ until said~~a~~ water content of said dispersion~~melt~~ is less than~~reduced to~~ about 0.15 weight percent.

Claim 13 (original)

The method of claim 12 wherein said polymer-based pellets each contain from about 15 to about 25 weight percent of said phase change material.

Claim 14 (currently amended)

A method of manufacturing polymer-based pellets that are useable in extrusion and melt spun processes to form plastic articles, comprising ~~the steps of~~:

providing a~~at least one water based~~ phase change material;

providing a low molecular weight polymer having an affinity for said phase change material;

providing a high molecular weight polymer having an affinity for said low molecular weight polymer and having physical characteristics compatible with an intended use of said plastic articles;

melting said low molecular weight polymer to form a first melt;

generally uniformly blending said phase change material into said first melt to form a first blend;

cooling said first blend to form a first solid;

processing said first solid to form granules;

melting said high molecular weight polymer to form a second melt;

generally uniformly blending said granules into said second melt to form a second blend;

cooling said second blend to form a second solid; and

processing said second solid to form said polymer-based pellets.

Claim 15 (original)

The method of claim 14 wherein said polymer-based pellets each contain from about 10 to about 30 weight percent of said phase change material.

Claim 16 (currently amended)

The method of claim 14 wherein:

said low molecular weight polymer is selected from the group consisting of ~~homopolymers of~~ polyethylene, polypropylene, Nylon 12, polybutylene terephthalate, ~~and copolymers of~~ polyethylene-co-vinyl acetate, polyethylene-co-acrylic acid, polybutylene terephthalate-co-polytetramethylene ~~terphthalate-co-polytetramethylene~~ terephthalate, and polylauryllactam-block-polytetrahydrofuran; and

said high molecular weight polymer is selected from the group consisting of polyamides, polyamines, polyimides, polyacrylics-, polycarbonates, polydienes, polyepoxides, polyesters, polyethers, polyflourocarbons, formaldehyde polymers, natural polymers, polyolefins, polyphenylenes, silicon containing polymers, polyurethanes, polyvinyls, polyacetals, and polyarylates.

Claim 17 (original)

The method of claim 14 wherein said phase change material is an encapsulated phase change material.

Claim 18 (currently amended)

The method of claim 14 wherein said phase change material is physically confined to a plurality of physical volumes by ~~the addition of~~ a material selected from the group consisting of silica, fumed silica, and zeolite.

Claim 19 (currently amended)

The method of claim 14 wherein ~~said step of~~ processing said first solid~~first solid~~ and ~~said step of~~ processing said second solid~~second solid~~ each includes~~include~~ an extrusion step.

Claim 20 (currently amended)

The method of claim 14 wherein blending~~said step of adding~~ said phase change material into~~to~~ said first melt~~first melt~~ includes adding a wet cake~~weteake~~ of said phase change material to said first melt to form said first blend~~first melt~~, and the method further comprises~~including the step of~~ heating said first blend~~first melt~~ until a water content of said first blend~~first melt~~ is reduced to less than~~at least~~ about 0.15 weight percent.

Claim 21 (original)

The method of claim 20 wherein said polymer-based pellets each contain from about 15 to about 25 weight percent of said phase change material.

Claim 22 (currently amended)

The method of claim 14 wherein said phase change material is microencapsulated within a plurality of hollow shells, and wherein said low molecular weight polymer includes a ~~polymer~~ constituent having an affinity for ~~material forming~~ said hollow shells.

Claim 23 (original)

The method of claim 14 wherein said phase change material is encased in a plurality of nylon shells, and wherein said low molecular weight polymer includes a nylon constituent.

Claim 24 (currently amended)

A method of manufacturing polymer-based pellets that are useable in an extrusion/melt spun process to produce synthetic fibers ~~having phase change material therein~~, ~~said method~~ comprising ~~the steps of~~:

providing a~~at least one~~ water-based form of a phase change material;

providing a low molecular weight polymer having an affinity for said phase change material;

providing a high molecular weight polymer having an affinity for said low molecular weight polymer and having physical characteristics compatible~~selected in accordance~~ with an intended use of said synthetic fibers;

melting said low molecular weight polymer to form a first melt;

blending said water-based form of said phase change material into said first melt~~first melt~~ to form a first blend;

heating said first blend~~first blend~~ until a water content of said first blend is generally eliminated;

cooling said first blend to form a first solid;

physically processing said first solid to form granules;

melting said high molecular weight polymer to form a second melt;

generally uniformly blending said granules into said second melt to form a second blend;

cooling said second blend to form a second solid; and

physically processing said second solid to form said polymer-based pellets.

Claim 25 (original)

The method of claim 24 wherein said polymer-based pellets each contain from about 10 to about 30 weight percent of said phase change material.

Claim 26 (currently amended)

The method of claim 24 wherein said phase change material is~~comprises a plurality of individual physical volumes of phase change material, each individual volume being~~ encapsulated within a plurality of hollow shells~~shell~~, and wherein said low molecular weight polymer has an affinity for said hollow shells.

Claim 27 (currently amended)

The method of claim 24 wherein~~said step of~~ physically processing said first solid~~first solid~~ and~~said step of~~ physically processing said second solid each includes~~include~~ an extrusion step followed by a pulverizing step.

Claim 28 (currently amended)

The method of claim 24 wherein ~~said step of~~ heating said first blend~~melt~~ includes heating said first blend~~melt~~ until saida water content of said first blend~~melt~~ is reduced to less than~~at least~~ about 0.15 weight percent.

Claim 29 (new)

The method of claim 14 wherein blending said phase change material into said first melt includes adding a water-based form of said phase change material to said first melt to form said first blend, and the method further comprises heating said first blend until a water content of said first blend is generally eliminated.

Claim 30 (new)

The method of claim 29 wherein said water-based form of said phase change material is a wet cake of said phase change material.

Claim 31 (new)

The method of claim 30 wherein said wet cake of said phase change includes from about 60 to about 70 weight percent of said phase change material.

Claim 32 (new)

The method of claim 24 wherein said water-based form of said phase change is a wet cake of said phase change material.

Claim 33 (new)

The method of claim 32 wherein said wet cake of said phase change includes from about 1 to about 90 weight percent of said phase change material.